

CLAIM AMENDMENTS:

1. (original) An apparatus for use in conducting chemical or biological reactions requiring the input of at least one fluid reagent and/or the output of at least one fluid product, the apparatus comprising a reaction chamber having an inlet for the supply of at least one reactant and an outlet for the recovery of at least one product, the reaction chamber being provided with a regulator comprising a propeller mounted in the reaction chamber in the region of the inlet for dispersing the at least one reactant in the reaction chamber.

2. (currently amended) An apparatus as claimed in claim 1, ~~wherein the regulator is provided with a~~ at least one perforated element capable of allowing the passage of fluid material therethrough.

Claim 3-8 (canceled)..

9. (currently amended) An apparatus ~~as claimed in any preceding~~ according to claim 2, wherein the perforated element and/or the propeller is heated by a heating means.

Claims 10-12 (canceled).

13. (currently amended) An apparatus ~~as claimed in any preceding~~ according to claim 9, wherein the propeller is connected to a power supply for driving the propeller.

14. (currently amended) An apparatus ~~as claimed in any preceding~~ according to claim 1, wherein the propeller comprises a plurality of ~~veins~~ vanes in the shape of ~~substantially~~ a semi-circle, an ellipse, a tear drop, a half tear drop, a bellcurve, a half bellcurve, a rectangle, a triangle and derivatives thereof.

Claims 15-18 (canceled).

19. (currently amended) An apparatus ~~as claimed in any preceding~~ according to claim 1, wherein the propeller has a longitudinal shaft defining a rotation axis and at least one blade attached to the shaft by means of an elongated blade root, the axis of the propeller is between being tilted at an angle of from 0.5° to 60° with respect of a to the longitudinal axis of the reactor inlet or outlet.

Claims 20-31 (canceled).

32. (new) An apparatus according to claim 2, wherein the propeller is mounted beneath the perforated element.

33. (new) An apparatus according to claim 13, wherein the degree of heating and/or the speed is controllable by means of an ECU associated with the apparatus.

34. (new) An apparatus according to claim 1, effective to regulate the distribution of the at least one fluid reagent in the reaction chamber.

35. (new) A process for conducting a chemical or biological reaction comprising supplying at least one fluid reagent to a reaction chamber via a reactor inlet fitted with a regulator in accordance with claim 1.